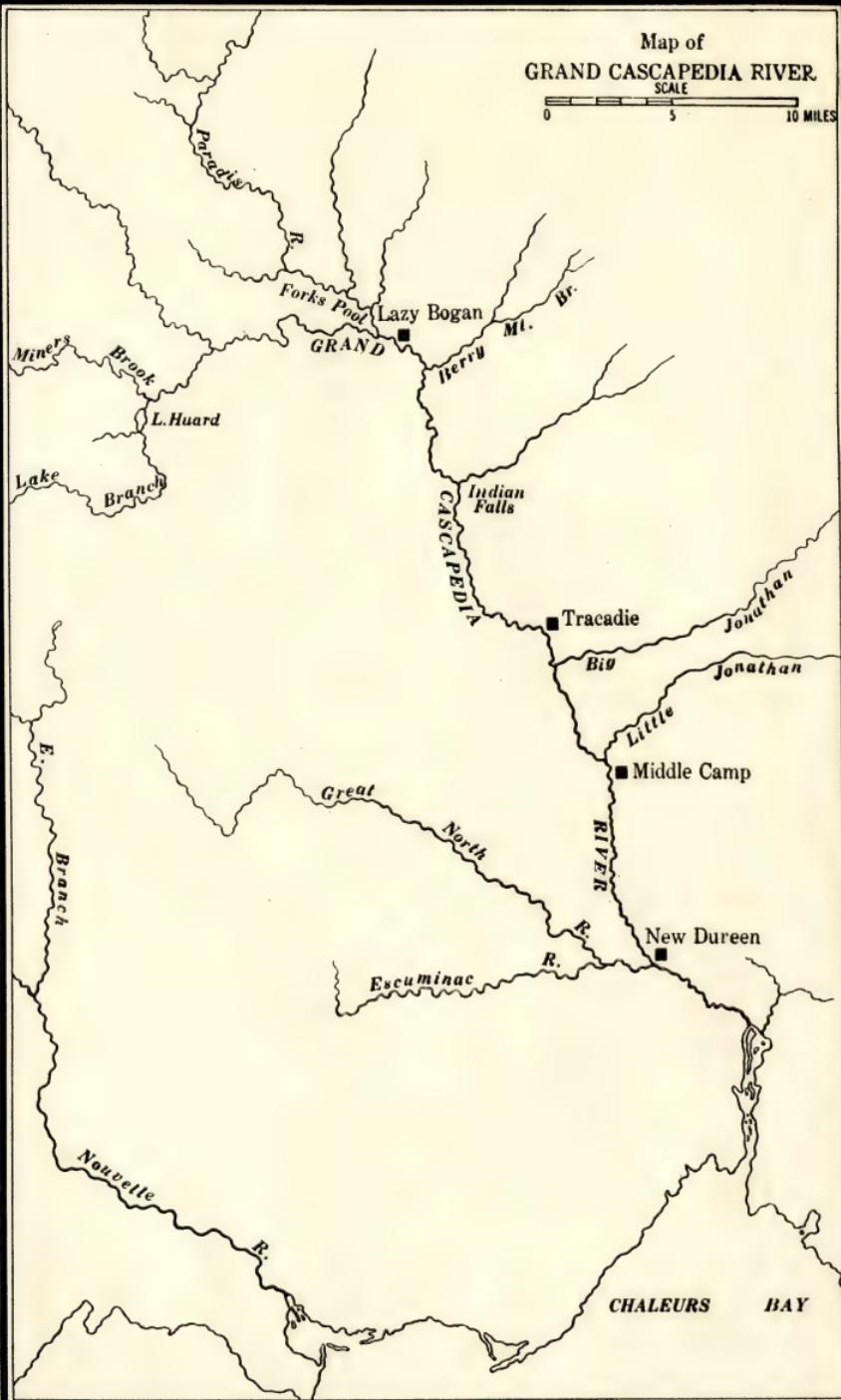


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JOHN AND MARTHA DANIELS



Map of
GRAND CASCAPEDIA RIVER

SCALE
0 5 10 MILES



OBSERVATIONS ON A SALMON RIVER

COMPLIMENTS OF

F. GRAY GRISWOLD

**PRIVATELY PRINTED
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ANGLING

THE charms of angling are anticipation and solitude. It takes much time and practice to become proficient, and you must be keen and quick and have great delicacy of touch to become a good angler. It cultivates quickness, self-control, and above all things, patience.

Angling is a sporting fight between you and the fish and, as no two families of fishes fight alike, you are matching your brains and cleverness against the ingenuity of the fish.

It also cultivates a habit of observation which is so necessary if one would enjoy life and nature, and it takes one to beautiful rivers at nature's most attractive season when there is so much that is interesting to observe both in bird and in plant life.

The solitude on the Canadian rivers is broken by the pleasant sound of running waters, the note of a king-fisher or the drumming of a partridge, and the typical clinking sound of iron-shod canoe poles as a canoe is driven up stream.

GAME FISH

GAME FISH

FROM the standpoint of a fisherman I divide game fish into two classes namely, the forked-tailed and the square-tailed fishes.

The former travel great distances, swim rapidly, and are nearly all surface feeders and strong surface fighters.

The latter dwell on the bottom, are bottom feeders, and generally have a local habitat.

The forked tail has been given to the swordfish, tarpon, bonefish, bluefish, spearfish, dolphin, and all the pampano, herring, and mackerel tribes.

The tail is forked for the purpose of leaving a free space directly behind the axis of the body where the stream-lines following the sides of the moving fish converge. This means ease and speed in swimming. A

round or square tail is a drag for it fills this space.

The whales and porpoises have horizontal forked tails which they move up and down, for they rise to the surface when swimming.

Among the square-tailed fish I classify the bass family, the snappers and groupers, and the salmon family.

The square-tailed fish are slow swimmers and seldom travel far. Those that do, such as the drumfish and the striped bass, proceed at a leisurely pace. The latter during their yearly pilgrimages travel and feed so close inshore that it has been possible by netting to almost destroy what was at one time one of the most numerous of our game fishes.

The forked-tail fish journey great distances and often at a high rate of speed, seeking food or a change of water temperature, and do not hibernate as do some of the square-tailed fish.

The square tail of the salmon is one proof, to my mind, that when they leave a river

they do not journey far but dwell in the deep sea near the mouth of their summer home.

Although the seafood of the salmon when off the mouth of a river is known to be herring and the like, their square tails would lead one to believe that they are bottom feeders and that they feed leisurely and well, which would account for the fresh-run fish's superabundance of fat.

According to Alexander Agassiz the pelagic animals are very short-lived but they reproduce marvelously. Some of the Copepods, which are minute crustaceans, have no less than thirty generations in three weeks.

As they are constantly dying there is a shower of food falling over the ocean floor which joins the food that comes from the littoral regions. It is stated that there is a thick broth of food over wide areas of sea bottom which can readily be obtained with very little effort on the part of the fishes.

The progress of large bodies of salmon in the sea, judged by the catches in nets at different stations, is said to be four or five miles a day. They only travel in the day-time; no salmon are taken in the nets at night.

After entering the river, these conditions are changed for then the salmon travel mostly by night.

Previous to entering the pure fresh water they remain for some time in the estuaries, moving in and out on the tides and becoming gradually acclimatized to the change from salt to fresh water.

A considerable portion of the salmon that spawn before the rivers freeze return to the sea the same autumn, but a large number winter in the rivers and come down stream in the spring as kelts or "slinks."

The French Canadians call these fish *lingards*—a corruption of "long gars."

The kelts that descend the rivers in the autumn are dark in colour and slimy, whereas those that leave in the spring, *having*

molted, are bright fish. This, at least, is the present day theory.

It is supposed that the grilse are four or five years old and that their rate of growth after that period is from four to six pounds a year.

A salmon was caught at West Baldwins half a mile from Channel Head, Newfoundland, by Louis Sheaves on June 5, 1919, with a silver tag attached to its dorsal fin marked A1124. The fish when caught measured 40 inches in length, 23 inches in girth and weighed 26 pounds. R. Mosdell, the station master at Port aux Basques, obtained the fin tag and submitted it to the Game and Inland Fisheries Board for inquiry as to where the fish had been liberated.

On July 15 he received a message from the Game Board stating that the fish was liberated from the salmon hatchery at Margarie, Nova Scotia, November 1917; at that time it measured 34 inches in length and weighed 12 pounds.

This dislodges the theory that salmon always frequent the same water yearly, and also shows a remarkable growth within the given period.

This fish in nineteen months grew in length 6 inches, being an average of almost an inch every three months, and gained an average of three-quarters of a pound in weight per month for the same period.

THE AGE OF SALMON

THE AGE OF SALMON

ACCORDING to Malloch it is easy not only to tell the age of an Atlantic salmon by its scales but also to follow its journeyings and occupations through life.

As the rings on a cross-section of a tree show the tree's yearly growth, so do the rings on a salmon's scale determine the age of a salmon.

The scales of a parr hatched in March when a year old have 16 rings, and 32 rings can be counted after the expiration of another twelve month.

Two months or so later the parr becomes a smolt and goes down to the sea and may return the following May or June as a grilse with 52 rings, more or less.

If the rings on a fish's scales number less than 58 it is a grilse, if more than that number show it is a salmon.

All the grilse and salmon that enter a river are supposed to spawn and those that remain long in fresh water have the edges of their scales broken off. When the kelt-grilse and the kelt-salmon return to the sea and begin to feed, a ring forms around these broken parts and these rings increase in number according to the time the fish remain in the sea.

In the Grand Cascapedia River a grilse is seldom seen or taken. This may account for the great average size of the salmon in that river. These fish may pass their grilse term of life in the sea, where, with good food and without the fatigue of spawning, they grow in weight accordingly, and enter the river later on as full-fledged salmon. Few salmon are taken in the Grand Cascapedia under 20 pounds in weight, and it was there that Dr. S. Weir Mitchell took in 1896 40 salmon that averaged 28 pounds.

In order to determine the time the salmon remain in the sea it is necessary to count the rings from the broken or uneven lines out-



DUTHIES POOL

wards. No rings are formed on the scales in fresh water.

The great majority of salmon are said to spawn but once although some spawn twice or more often.

It is claimed that salmon, during the period of their stay in a river and after having fulfilled their mission, lose twenty-five per cent of their weight.

The very large salmon, those from 40 to 50 pounds, are cock-fish, generally old bachelors, gourmets and gourmands that have remained in the sea where the food is good and plentiful rather than undertake the up-stream struggle with perhaps little or no food, and with domestic troubles awaiting them at their journey's end.

For example, the 61 pound cock-salmon taken in the Tay in Scotland on July 13th, 1902, proved by its scales to be 7 years and 2 months old, and the scales also showed that it was this salmon's first return from the sea.

It is claimed that as far as rivers are con-

cerned the life of an Atlantic salmon is 8 years. No fish have been taken of a greater age.

**DO SALMON FEED IN
FRESH WATER?**

DO SALMON FEED IN FRESH WATER?

THESE are questions that will probably never be answered to the satisfaction of all anglers.

It is claimed that salmon come up a river in prime condition and that many remain there for twelve months and return to the sea without having tasted food. There is no doubt that the fish lose weight while in the river and that their adipose matter is reduced just as is the fat of hibernating fish during the winter.

This is a wise provision of nature, for the salmon are on spawning bent. It is a well-known fact that half-starved rabbits are much more prolific than those that are well fed.

Losing weight may also mean that the food obtainable in the fresh water is not

as plentiful or as nourishing as in the sea, yet they may have the young of other fish, worms, small eels and an abundance of insect life for their daily fare.

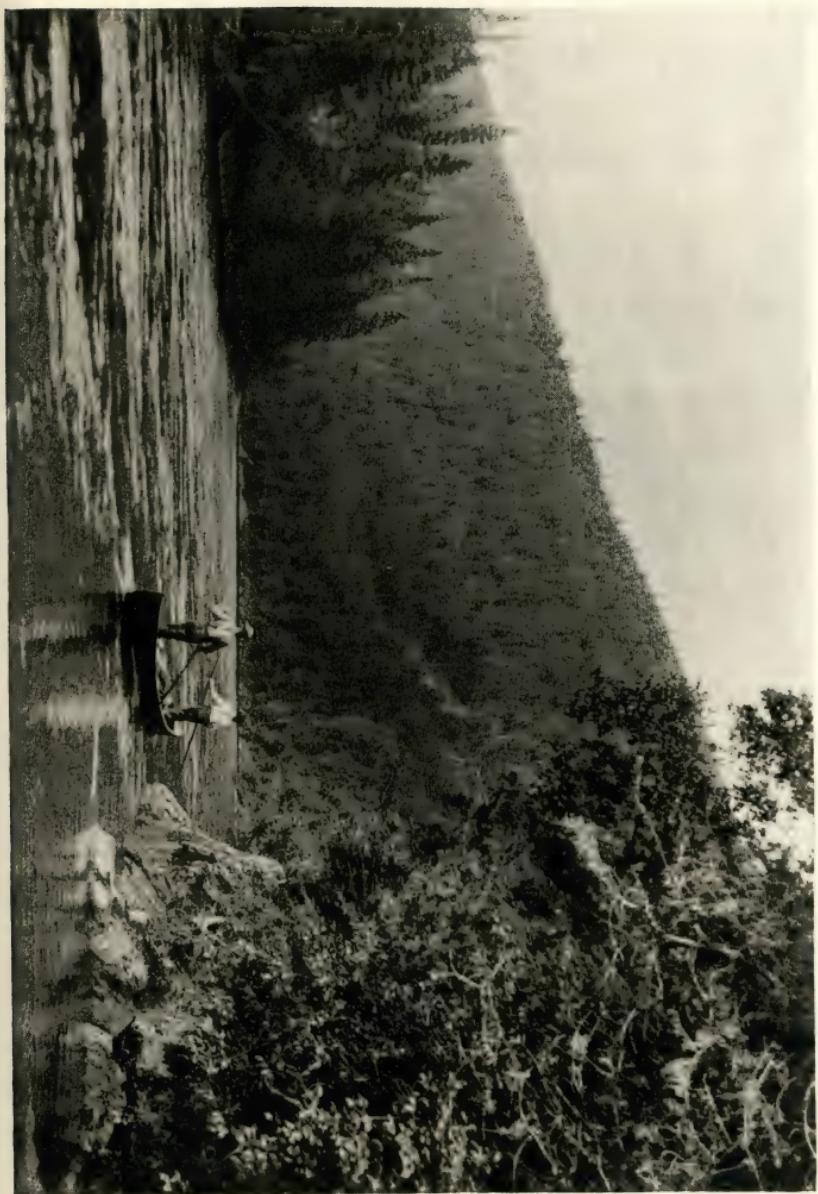
It is also said that nothing in the way of partly digested food is ever found in a river salmon, yet fish are known to disgorge during their struggles after being hooked.

Salmon fresh from the sea have been examined in great numbers to decide what they feed on. The staple food seems to be herring, though partly digested sand-eels, whiting, and haddock have been also found.

Salmon have been taken in the Grand Cascapedia river containing trout, mice, and other objects of food.

In the receiving pond at the fish hatchery on the Spey in Scotland it is said that the salmon become intermittent in their feeding with the first frosts of autumn and consume very little food in mid-winter, but feed well during warmer weather.

It was also observed that when the tem-



JOE MARTIN POOL

perature of the water rose above 70° the salmon became listless and in thunder weather they would not rise from the bottom of the pond.

If salmon do not feed why do they rise and take a fly? Why do they pursue all moving objects? Why should a salmon fly be manipulated so as to resemble a moving minnow or insect and why should jungle-cock feathers be the most attractive dressing for a fly if not to attract the light as scales do on a small fish?

One theory is that the salmon enter fresh water for one purpose alone and that they desire to destroy all creatures that may endanger their future young. This would imply much forethought, for the fish enter the Grand Cascapedia in June and do not spawn until November.

Salmon have been known to seize, suck, and eject floating butterflies and other insects. Can it be that they obtain their sustenance by sucking and ejecting their food in fresh water because they cannot

digest solids owing to the changes that occur in the stomach and alimentary canal of the fresh run salmon?

Is it not possible that when a salmon first enters a river he still feels hungry and has not forgotten the feeding habit? He may have a craving for food yet be unable to retain it. This craving may cease after a time yet a rise of water and a change of pool may renew it. The "slink" is supposed to have been in the river for a year, yet he surely shows plenty of "craving."

It is said that salmon are more aggressive than voracious and that it is anger, annoyance, or playfulness that makes them rise to a fly. I have seen them pursue a fly as if in hunger and when they could not be denied.

All anglers will admit that salmon take more readily during the "magic hour" than at any other time. It is quite possible that they may have a preference as to their favorite hour to feed, but is it probable that they are more apt to be annoyed or angry

at sundown than at any other hour of the day?

The general opinion in Scotland at the present day is that there can be no possible doubt but that the salmon do feed in fresh water.

DO THE SALMON ENTER FRESH WATER FOR THE SOLE PURPOSE OF SPAWNING?

I believe that they have another reason. Most fish love warm water and enjoy the sunlight—in fact, love to bask in the sun.

After a winter of heavy snowfall the water is cold and the salmon are late in arriving, but if the snowfall is light the fish arrive early.

The lower waters of the Grand Cascapedia being fed by numerous mountain brooks are cold. I found the temperature of the water rose as I went up stream and also that the fish in the upper waters had more life than those I had taken in the cold water below. This lack of energy in fresh run fish may be influenced by the cold water,

or the fish may not have become accustomed to the somewhat sudden change from salt to fresh water, for I have no doubt that they are affected as a man from the low-land would be who suddenly found himself in a high altitude.

A very interesting experiment was tried in Scotland in 1906. "Two grilse were taken from a net in the Bay of Nigg and placed in sea water in a tank at the fish hatchery for the purpose of discovering how long sea lice will remain attached to salmon in fresh water. The density of the water was reduced by allowing fresh water to enter. This operation was regulated so as to represent approximately in time the period of one flood tide. The fish showed *considerable distress* at first, from which it is natural to suppose that the transference to brackish water was too rapid.

"Dating from the time the water was quite fresh the sea lice remained on one fish for four days and on the other for five days." (Calderwood.)

This experiment shows that a fish taken in the upper waters with one or two sea lice attached may have been at least three or four days in passing from the tide.

I believe that, after long winter months in the dark deep sea not very far from the river in which they were spawned, the salmon are inspired in the spring by the flow of water from the rivers to return to fresh water.

There is no doubt that the salmon find warm water congenial. The upper waters of the Grand Cascapedia run through stretches of lowland and are not deep. They are well exposed to the rays of the sun and the bottom of the river is covered with gravel and sand.

At Lazy Bogan in the Parson and Forks pools the fish are found in great numbers. Here they are known to spawn, yet they use many other parts of the river for a like purpose. May it not be the warm water and a summer of light and sunshine that they seek?

**MODERN SALMON
FISHING**

MODERN SALMON FISHING

BY modern salmon fishing I mean the present-day form of fishing from a canoe on Canadian rivers, for in Scotland, where a man must wade or fish from the bank and is often obliged to cast a very long line, the modern light rods would be of poor service.

In canoe fishing the sport is made easy, for after a fish is hooked the canoe may be moved about and you are quickly placed below your fish, or should the fish take down stream you may follow him on his mad career.

In this form of fishing you seldom have to cast a fly more than twenty-five yards. The length and weight of a rod depend on the distance it is necessary to cast a fly, for after hooking a fish it is a very easy matter to end the struggle in short order if you understand handling fish, for a fresh run

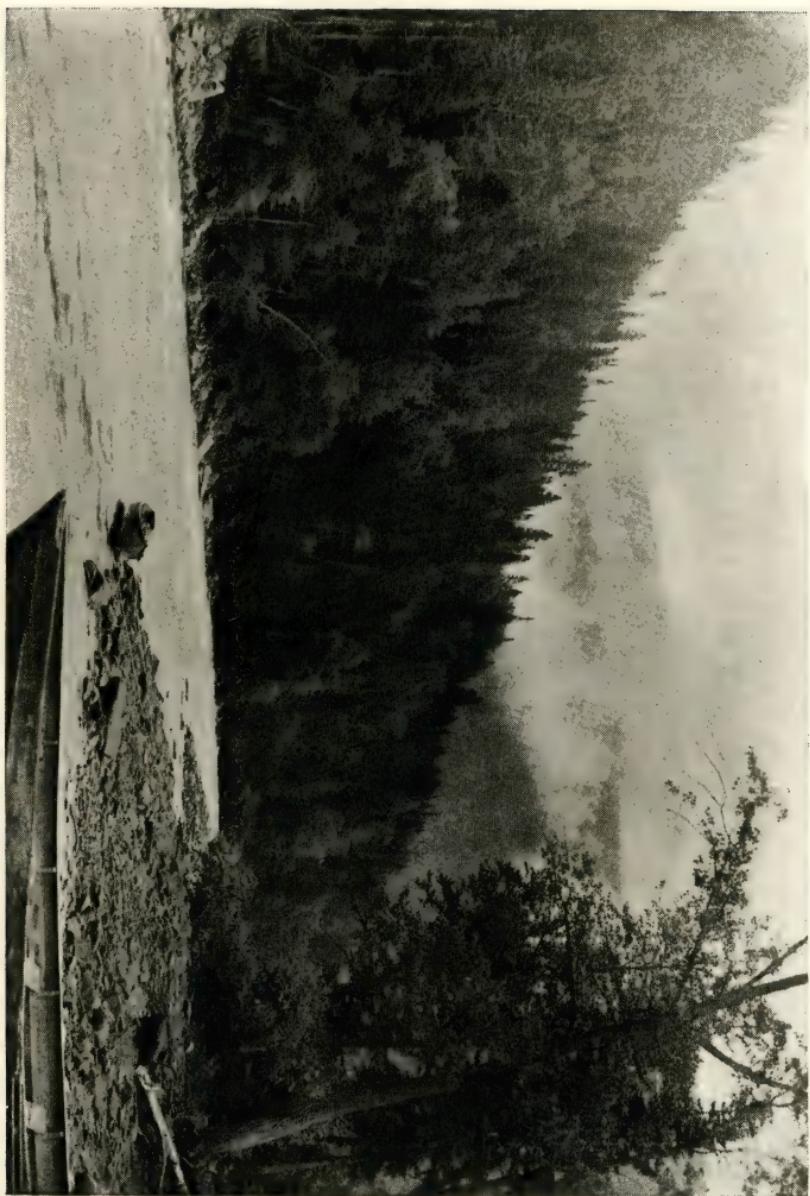
salmon, though active, is not a strong fighting fish for its weight.

Some of the old-time anglers still use the English wooden rods of sixteen feet or more in length, for they maintain that they are superior to the modern light split bamboo grilse rod. Their theory is that the latter is too quick in action and loses many striking fish, which it should not do if the rod is handled with the light hand that it is not possible to employ with a heavy rod. I find the green-heart rod is superior in a strong wind, for it has more power.

The wooden rod, though more brutal when you first give the fish the butt, is not nearly so killing, for every fibre in the bamboo is alive and at work all the time.

The modern split bamboo grilse rods now in use are fourteen feet, more or less, in length and are easy to handle for they are well balanced and weigh from 16 to 24 ounces.

My advice to a beginner using these rods is to banish the idea that the salmon rod is a



INDIAN FALLS RAPIDS

two-handed rod, and always to bear in mind the fact that the right arm and the rod are as one. No amount of energy applied to the rod by the left hand will communicate itself to the line. The left hand is employed as a help in holding the rod, in fact is simply a rod-rest.

By grasping the rod firmly with the right hand at the upper end of the cork handle, with the thumb along the rod, the energy of the right arm is communicated to the rod. You cannot use the full spring of the rod unless it is firmly held. This may not be necessary for a short cast but for a long line it is imperative.

After lifting the line from the water for the back cast a flip of the left thumb to the butt at the right moment is all that is necessary, the forward cast being made with the right hand only.

ANGLING FOR SALMON WITH A "DOPED" FLY

ANGLING FOR SALMON WITH A "DOPED" FLY

I HAVE for years been a great believer in the acute smelling powers of fish. These powers I have often tested when seafishing.

If on a still day you see the dorsal fin of a leisurely swimming shark on the surface of the ocean, you may always inspire the shark with new life by pouring fresh fish blood into the sea. The shark will at once become alert and begin to hunt the blood-scent until he finally discovers its source.

Then again, when anchored and fishing for bonefish, after having distributed the crab-meat chum, you will often see a school of bonefish hunting the smell of the chum as a pack of hounds hunt the cold scent of a fox, quartering to the right and to the left until they eventually hit the line and find what they are looking for.

Knowing that the trappers in the northern woods lead their prey to their baited traps with "charm-oil," I conceived the idea that fish might be enticed in a like manner.

This was difficult in seafishing as the friction caused by trolling a bait through the water destroyed the odor of the "charm-oil," but in fly-fishing I found it quite simple.

My first attempt was when fishing on a salmon river in Canada. The river was low and the water quite clear. I had been fishing over a salmon of fair size that could readily be seen lying on the bottom close to a large stone.

After trying different flies as well as different sizes of flies with no result, I handed the rod to my canoeman, an old and very experienced fisherman, and told him to have a try. He used all his powers of persuasion to entice the fish but with no success.

As he handed me my rod I said: "Now I shall show you how to take that fish."

I anointed the fly he had been fishing with by placing a drop of "charm-oil" on the hackle of the fly. On my second cast I rose, hooked, and landed a 24-pound salmon. This was not chance for it happened on several occasions in a like manner, rising fish that would not look at an "un-doped" fly.

The last day on the river that season found me, after three days of heavy rain, stormbound at a camp up stream, with all the experts insistings that no fishing was possible.

The water had risen seven inches since eight o'clock in the morning, and three feet since the rain began, and it was still rising at one when we started down stream.

A heavy fog overhung the river and the water was of the colour and consistency of pea-soup, a combination of every adverse condition possible for sport.

I proposed stopping at a choice pool on the way down stream, for, I said, I wished to take a few fish home.

I was laughed at by the canoemen but, being more of a fisherman than an angler and having no prejudices, I insisted.

When we reached the pool we found the water very high and running strong. I could hear the small stones rolling along the bottom of the pool, and the partly submerged branches of the bushes on the banks were dancing back and forth as the current swept by.

The canoeman said: "There ain't no fish in this pool, don't you hear the stones a-rolling?" I replied that they must be somewhere about the pool as I saw no salmon on the bank and that fish were not known to climb trees.

The killig was dropped close to the bushes at the edge of the pool and, casting a well "doped" fly down stream, I rose, hooked, and landed three salmon of 12, 26 and 35 pounds, the only fish taken on the river that day.

The canoe could not be moved about owing to the rapid current and, as I was



CHARLIE VALLEY

fishing with a light grilse rod, it was no easy matter to handle the two heavy fish.

Later on I discovered the following in "The Northwest Coast," a book by James G. Swan published in 1857. Writing of salmon fishing in Shoal Water Bay, Washington Territory, he says: "When the fish were shy or the Indians unsuccessful they would rub their hooks with the root of wild celery which has a very aromatic smell and is believed by the Indians to be very grateful to the salmon and sure to attract them. I have also seen the Indians at Chenook rub the celery root into their nets for the same purpose though I have never tried its effects and have some doubts about its value."

THE PACIFIC SALMON

THE PACIFIC SALMON

THE salmon of the Pacific is a genus that is very close to the Atlantic salmon, differing chiefly in the increased number of anal rays and in the fact that *they spawn but once and all die after spawning.*

When in the sea the salmon are supposed to dwell 20 to 40 miles off the mouth of their native river and return to spawn, being attracted by the cold river water.

There are five species of salmon in the Pacific.

The largest species is the Quinnat, chinook, tyee or king salmon (*Oncorhynchus tshawytscha*) which is found from Monterey Bay to northern Alaska and also in the Siberian rivers. This fish frequents large rivers and is taken in the Yukon at Dawson which is 1,500 miles from the sea.

They are said to attain a weight of over 100 pounds. They will average 25 pounds, many fish weighing over 40 pounds. The largest I have seen weighed 72 pounds.

It has never been explained why there is a heavy run of fish every fourth year. This heavy run occurs the year following leap year. For example in 1921 and again in 1925.

The fishermen claim that these fish remain in the sea for four years, and those that weigh about 20 pounds have returned sooner and are called springfish.

The very large fish, those over 50 pounds, may have remained away for more than four years or perhaps have been more fortunate in obtaining good food.

The Blueback or Sockeye salmon (*O. nerka*) forms the greater part of the canned salmon of the world and is found from southern Oregon to Alaska. This fish also has a heavy quadrennial run. They enter the Columbia and Fraser rivers in great numbers and journey over 1,000 miles from

the sea. Their maximum weight is 15 pounds.

The Silver or Coho salmon (*O. kisutch*) resembles the Atlantic salmon for it has a brilliant silvery skin. It is the gamest fish of the lot and usually weighs from 3 to 8 pounds, although individuals have been taken that weighed over 20 pounds. They are found from Monterey Bay northward and also along the Asiatic coast, being common in Japan.

The Humpback salmon (*O. gorbuscha*) reaches a weight of from 3 to 6 pounds and is the smallest of the genus. It is in very great abundance in the rivers of Alaska. The run of this fish is heavier in the odd than in the even years. This fish, unlike the other species, will not take a spoon or lure of any kind.

The Dog salmon (*O. keta*) is very abundant but the least valuable as a food fish. It is found from the Sacramento northward and reaches a weight of 10 to 12 pounds.

The Steelhead (*Salmo gairdneri*) al-

though called a salmon by the fisherman is a trout. This is a very game fish that takes a fly. Its maximum weight is said to be 20 pounds, although the usual run is from 2 to 6 pounds. In California the taking of this species is restricted to hook and line fishing.

The number of salmon in the Pacific is beyond all belief. Taking the year 1909 as an example we find the catch was very heavy owing to the quadrennial heavy run of sockeye and chinook and the biennial run of humpback salmon.

The total catch of California was 12,141,937 pounds and of Alaska 175,934,000 pounds.

The total catch of the whole coast including British Columbia in 1909 is said to have been 365,336,482 pounds of salmon and steelhead trout, which returned the fishermen \$7,224,024, and in addition there were the millions of fish that died after spawning.

**S A L M O N F I S H I N G A T
C A M P B E L L R I V E R**

SALMON FISHING AT CAMPBELL RIVER

THE Campbell River rises among the snow-capped mountains in the interior of Vancouver Island, B. C., about 270 miles north of Victoria, and flows southeast into Discovery Strait. About four miles from its mouth it tumbles over high falls into a canyon, and this is where the great "tyee" (chief) salmon go to spawn. Not only the tyee use these spawning-beds, but the humpback and the beautiful coho salmon are also there in great numbers.

I journeyed six days to see if the reports of the wonderful fishing at the mouth of the Campbell River were true, and found the sport far better than I had hoped. One reason for the extraordinary fishing that season was the fact that the Government, by heavy fines, had succeeded in

driving away the Japanese poachers, who for several years openly defied the law, and poached the salmon with every known device from dynamite to illegal meshed nets.

Discovery Strait is a stretch of salt water, an arm of the Pacific ocean, which separates Vancouver and Valdez Islands, and is about two and one-half miles wide. If it were not for the great current and strong tides that flow through the straits it would remind one of a Swiss lake, for you are surrounded by hills beautifully wooded with splendid fir-trees, and snow mountains show plainly in the distance.

The best fishing is along the shore of Vancouver Island, a stretch of water one mile below and half a mile above the sand-bar at the mouth of the river. The current is so swift that it is almost impossible to fish except at the change of the tide or at half-tide. As the mode of fishing is trolling with a spoon, it is impossible to make enough headway when the tide is running strong, especially about the time

of the full moon. The natives fish with hand-lines, with heavy lead and small silver or copper spoons, the lead being about twenty feet away from the spoon. It is most interesting to watch the Indians standing in dugout canoes handling the fish, gently playing it, and finally clubbing it on the head, when the fish, having fought its battle, has succumbed. It is said that these fish return to the river to spawn after having left it four years before, and that, after spawning, they all perish. This seems hard to believe—hard to believe that a fish can grow to the size and acquire the strength that these fish do in so short a time; for I saw one giant, taken on a hand-line, that weighed 72 pounds at the cannery some hours after it was taken, and I killed a fish myself that weighed 60 pounds.

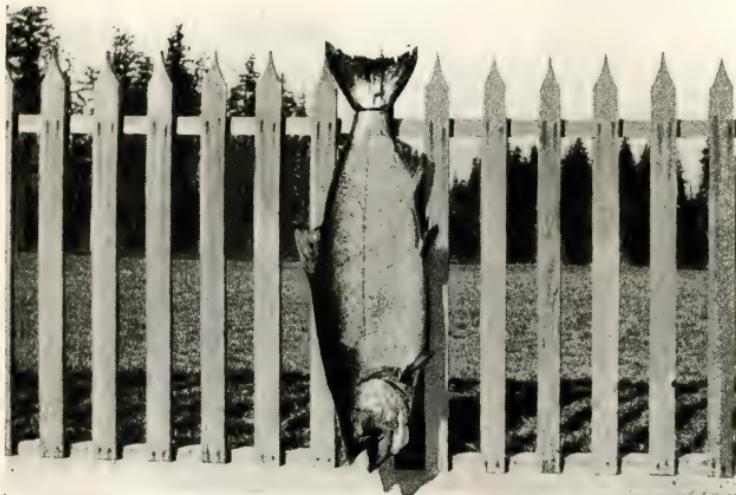
These fish came from the north, and are found off Kitmat, some four hundred miles north of Campbell River early in May, but do not appear at the latter place before August 1.

Most of the amateur fishermen who were enjoying the sport when I was there were sportsmen from England, on their way to Cassiar after big game, who had stopped en route in the hope of taking a fifty-pound salmon. They had every possible kind of rod and tackle, most of it better adapted to fly-fishing than to sea-fishing, for this is sea-fishing pure and simple. I fished with a light striped-bass rod, a Cuttyhunk line, and with three ounces of lead, seven feet from the spoon. The lead is necessary, owing to the strong current, and does not seem to bother the fish, for they are very quick and have great strength. If you give them the butt after their first grand rush, they will generally jump three feet into the air. If you fish with a fly-rod, they never show, and are apt to take all your line before you can stop them. The light-tackle fishermen spend most of their time repairing outfits and buying new lines and spoons.

The fish feed on small bright herring,



SALMON, TOTAL WEIGHT, 212 POUNDS



TYEE SALMON, 60 POUNDS

Length 47 inches, girth 32 inches

$$\frac{\text{Girth}^2 \times \text{length}}{800} = \text{weight}$$

which abound, and any bright spoon seems to attract them when feeding. The coho salmon, which run from five to ten pounds in weight, are at times very plentiful. The professional fishermen take as many as seventy in a day's fishing, and the cannery on Valdez Island pays ten cents apiece for the fish. For the tyee salmon they allow one cent a pound. I saw two coho salmon taken with a fly in the open sea, fish of about eight pounds in weight; but as the fish are moving you might cast all day without rising one.

I took the following fish in fifteen days:

August 1: 60 pounds, 48 pounds, 46 pounds.

August 2: 49½ pounds, 51½ pounds, 15 pounds, 50 pounds, 46 pounds.

August 3: 40 pounds.

August 4: 45 pounds, 45 pounds, 42 pounds, 42 pounds, 40 pounds, 46 pounds, 47 pounds, 12 pounds.

August 5: 45 pounds, 35 pounds, 30 pounds, 42 pounds.

August 6: 42 pounds, 44 pounds, 35 pounds, 21 pounds.

August 7: 46 pounds, 40½ pounds, 41 pounds, 17 pounds.

August 8: 20 pounds, 44 pounds.

August 9: 43 pounds, 38 pounds.

August 11: 32 pounds, 46 pounds, 47 pounds, 48 pounds.

August 10: 29 pounds, 32 pounds, 35 pounds.

August 12: 53 pounds, 41 pounds, 41 pounds, 44½ pounds, 33 pounds.

August 13: 53 pounds. (High wind and rough water.)

August 14: ——

August 15: 51½ pounds, 40 pounds, 40 pounds, 37 pounds, 36 pounds, 35 pounds, 34 pounds.

Forty-seven tyee, average, 43 pounds; 5 spring fish, about 20 pounds each; 45 coho salmon. Total weight, 2179 pounds.

